

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Mark E. RUTLEDGESerial No.: **10/789,534**Filed: **February 26, 2004**For: **WIRELESS MOBILE SECURITY
COMPONENT SYSTEM AND METHOD**Art Unit: **2612**Examiner: **Samuel J. WALK**Examiner's Answer Mailed On: **March 7, 2007**

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REPLY BRIEF TO THE
BOARD OF PATENT APPEALS AND INTERFERENCES

This Reply Brief is responsive to the Examiner's answer mailed on March 7, 2007, in the above-referenced patent application (the "Examiner's Answer"). Applicant-Appellant requests maintenance of the Appeal. This Reply Brief is being filed within two months of the mailing date of the Examiner's Answer. Therefore, the Reply Brief is timely. In accordance with MPEP § 1208(I), the Reply Brief includes these identification and introductory pages, status of claims page, grounds of rejection to be reviewed on appeal page, and argument pages.

No fees are needed to file this Reply Brief. If the undersigned attorney is mistaken in this regard, authorization is hereby granted to charge all fees necessary to file this Reply Brief to Deposit Account No. 041160.

Applicant-Appellant relies on the Appeal Brief for exposition of the grounds for reversal of the rejections, and takes this opportunity to respond to a number of arguments made in the Examiner's Answer, and also to address certain issues and supplement arguments in view of the standard for determining obviousness pronounced by the Supreme Court opinion in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. _____, 2007 U.S. LEXIS 4745 (2007). Applicant-Appellant intends this Reply Brief to supplement the Appeal Brief, rather than to replace it.

I
STATUS OF CLAIMS

The status of claims in the present application is as follows:

Claims 1, 3, 8, 10, 14, 16, 21, 23, and 27-38 have been rejected and are pending.

Claims 2, 4-7, 9, 11-13, 15, 17-20, 22, and 24-26 have been previously canceled.

Applicant appeal from the rejection of claims 1, 3, 8, 10, 14, 16, 21, 23, and 27-38.

II

GROUND OF REJECTION TO BE REVIEWED

1. Claims 1, 3, 8, 10, 14, 16, 21, and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over what was asserted to be admitted prior art ("APA" in this paper) in view of Khan, U.S. Patent Number 6,789,928 ("Khan"), and in further view of Curatolo *et al.*, U.S. Patent Number 6,510,380 ("Curatolo").
2. Claims 27-34 and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the asserted APA in view of Khan and Curatolo, and in further view of Camhi, U.S. Patent Number 5,825,283 ("Camhi").
3. Claims 35-37 appear to stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the asserted APA in view of Khan and Curatolo, and in further view of Hwang, U.S. Patent Number 5,739,749 ("Hwang").¹

¹ The Final Office Action from which this Appeal was taken rejected claims 35-37 under 35 U.S.C. § 103(a) as being unpatentable over the asserted APA, Khan, Curatolo, and Hwang. The Examiner's Answer restates the rejections of the Final Office Action, but does not list the grounds for rejecting claims 35-37. The Examiner's Answer also does not list Hwang under the Evidence Relied Upon (page 4). It appears that the omission of the grounds of rejection of claims 35-37 and the omission of Hwang from the Evidence Relied Upon section were unintentional, and consequently these claims stand rejected as unpatentable over APA, Khan, Curatolo, and Hwang. We proceed on this assumption.

III ARGUMENT

A. Independent Claim 8

For convenience of discussion, claim 8 is set forth below:

8. An alarm system fixably located within a passenger vehicle, the system comprising:

an alarm controller fixably located within the passenger vehicle operable to enable wireless data communications; and

an alarm component fixably located within the passenger vehicle operable to enable wireless data communications with the alarm controller, the alarm component including a processor operable to perform an audible alarm indication function based upon signals received from the alarm controller and also when a signal has not been received from the alarm controller for a predetermined time interval.

In rejecting this claim, the Examiner's Answer acknowledged (page 5) that the APA does not disclose "wireless communication between vehicle components and alarm activation based on the non-receipt of signals between a control module and a monitored object." To fill these acknowledged gaps in the APA, the Examiner's Answer relied on Khan and Curatolo. In particular, the Examiner's Answer asserted that Khan "discloses an automotive mechatronic wheel light device wherein an electronic control module 50 provides light functions concurrent to the activation of the vehicle's theft alarm with a wireless connection such as RF transmission technology, see Col. 8 lns 32, 49-51 and 54-58." We understand that Khan is relied on as teaching a wireless connection between a control module and an alarm component operable to perform an alarm indication function, and take issue with this statement and the applicability of Khan's disclosure to the present invention.

First, Khan's "wireless" teaching is that of wireless power transmission. In Khan, "the electronic control module 50 directs electrical power from any wheel light circuit within the emitter

body 20 that may be energized and directs electrical power to the emitter's left or right 'turn signal' circuit via the electrical wiring 60 and appropriate carbon brush 40 and electrical track 31." Khan, col. 8, lines 41-46 (emphasis added). Khan therefore discloses wireless transmission of power for energizing the lights through the wiring 60 to the lights on the wheel. That is exactly what Khan claimed as his invention, in each and every claim. See Khan, claims 1-11 (note that claim 3 appears in the Certificate of Correction). Each of Khan's claims recites a power source not located on said wheel. For Khan's lights to produce light, power must be transmitted from the module 50, either through the "wiring 60 . . . [or] a wireless connection such as with RF transmission technology." Khan, col. 8, lines 56-58.

Thus, the wireless connection must be maintained between Khan's lights on the wheel and the power source that is not located on the wheel, in order for the lights to be energized. If the connection between the module 50 and the lights is interrupted, Khan's lights appear incapable of generating any light, because of the absence of power. No power, no light.

In contrast, the alarm component recited in Applicant's claim 8 produces an alarm indication also when a signal has not been received from the alarm controller for a predetermined time interval.

Therefore, introducing Khan's wireless disclosure into the asserted APA does not produce the wireless limitation recited in claim 8.

Second, note that Khan's enablement of the wireless power transmission is practically non-existent: "While carbon brushes 40 indicate a physical connection, it is within the scope of the present invention to provide a non-physical connection/wireless transmission of electrical power as is known in the art of signal-powered receivers. (Wireless power transmission was taught as early as 1914 by Tesla; U.S. Pat. No. 1,119,732)[.]" Khan, col. 9, lines 1-7. This "enablement" appears not

even applicable here, for the power transmission described by Tesla in the '732 patent is high tension power, unsuitable for energizing Khan's wheel lights.

Of course, the relevant inquiry is not whether Khan's patent itself is invalid for lack of enablement, but whether Khan enables the limitation in issue here. *See In re Kumar*, 418 F.3d 1361, 1369, 76 U.S.P.Q.2D (BNA) 1048 (Fed. Cir. 2005) (citing *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551, 13 U.S.P.Q.2d 1301 (Fed. Cir. 1989)); *Akzo N.V. v. United States Int'l Trade Comm'n*, 808 F.2d 1471, 1479, 1 U.S.P.Q.2d 1241 (Fed. Cir. 1986), *cert. denied*, 482 U.S. 909 (1987). In this regard, we note that high tension power appears to be unsuitable for energizing an audible alarm, such as a siren. Furthermore, high tension discharges in a consumer vehicle may harm drivers, passengers, and other electronic equipment, not to mention invoke wrath of various regulatory agencies. Still further, such wireless power transmission apparently requires line-of-sight placement of the power transmitter and receiver, which placement may be unavailable in a passenger vehicle.

Therefore, Khan neither teaches nor enables the wireless limitation in issue here.

The Examiner's Answer (page 6) also acknowledged that the asserted APA and Khan "still do not teach alarm activation based on the non-receipt of signals between a control module and a monitored object." The Examiner's Answer then relied on Curatolo for disclosure of "a security and tracking system wherein the alarm situation is determined when there is an absence of periodic signals between a first signalling unit and a second signalling unit"

In the Appeal Brief, we argued that neither Khan nor Curatolo discloses an alarm system component with the ability to perform an audible alarm indication function based on signals received from an alarm controller and also when a signal has not been received for a predetermined time

interval. Instead, upon non-receipt of a periodic signal, Curatolo's signaling units send signals to the GPS system and to a monitoring system. *See, e.g.,* Curatolo, col. 9, lines 22-44 (Example 2), and col. 10, lines 4-30 (Example 4). The Examiner's Answer now responds (page 9) that "Curatolo was introduced simply to show that an emergency situation would be notified/indicated, when there was an absence of signals between two signaling devices" It thus appears unchallenged that the references of record do not disclose an alarm component (such as a siren) that itself is capable of generating an audible alarm when a wireless link between the component and a controller is disrupted. Let us then take a closer look at the combination of the asserted APA, Khan, and Curatolo, and at the way this combination was obtained.

The justification for combining APA with Khan is identical in both the Final Office Action (pages 3-4) and the Examiner's Answer (page 6): "Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Lee into the admitted common knowledge because wireless communication is less costly to install, maintain and repair." Note that this justification speaks about Lee, not Khan. Technically, therefore, the rejection fails to offer any reason for combining the asserted APA with Khan. But even assuming that Khan was the intended reference in the quoted statement, the justification for adding the "wireless" limitation to the asserted APA was apparently taken straight out of Applicant's disclosure. In Applicant's words:

In some mobile environments, it is difficult, tedious, or nearly impossible, to run wires between the central alarm controller and some alarm components.

A need thus exists for a mobile alarm system and method that eliminates or reduces the wiring between the central alarm controller and one or more alarm components. The present invention provides such a mobile alarm system and method.

Application, page 1, lines 14-19 (numbered paragraphs 002-003). Neither the Final Office Action nor the Examiner's Answer gives any other source for the justification to combine the asserted APA with Khan, either in the art or in logical reasoning. But the justification for the combination of references must be founded in the prior art, not in the applicant's disclosure. MPEP § 2143 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)).

Exactly one week before the filing of this paper, the Supreme Court announced its opinion in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. ____, 2007 U.S. LEXIS 4745 (2007), holding that the teaching, suggestion, motivation (TSM) test of obviousness may not be applied in a rigid manner. Importantly, *KSR Int'l Co. v. Teleflex Inc.* does not dispose of the requirement for analysis of the references and for something beyond mere conclusions to justify a combination:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

KSR Int'l Co. v. Teleflex Inc., slip opinion at 14. Indeed, in the very next sentence the Supreme Court stated that “[t]o facilitate review, this analysis should be made explicit.” *Id.* In requiring this “explicit analysis,” the Supreme Court quoted with approval, *id.*, the approach of the Court of Appeals for the Federal Circuit: “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F. 3d 977, 988, 78 U.S.P.Q.2D (BNA) 1329 (Fed. Cir. 2006).

In the present case, there is no analysis, no balancing of advantages and disadvantages,

nothing beyond a bare conclusory statement, which itself was apparently derived from Applicant's disclosure. And even that statement refers to the Lee reference instead of the Khan reference.

Turning now to the justification for adding Curatolo to the asserted APA and Khan, the Final Office Action (page 4) and the Examiner's Answer (pages 6-7) simply state in identical verbiage that the combination "provides greater theft prevention." No source for the stated motivation is provided. Again, the statement is conclusory without any explicit analysis, articulated reasoning, rational underpinning, or explanation. In what way is theft prevention enhanced? What about false alarms when the wireless link is disrupted by, for example, radio frequency noise? Is the purported benefit outweighed by the cost of implementing an autonomous alarm component that includes a processor operable to monitor the wireless link? Is the purported benefit outweighed by the additional power consumption of such alarm component? These and other potential questions were left unasked and unanswered in the rejections.

Curatolo disclosed communicating location information to a monitoring station when two components are separated. The efficacy of this approach apparently depends on the ease with which the two components can be separated, because the so-called emergency situation is not detected or signaled until the two components are separated. Neither component is fixed to the person or asset being protected. In example 2, Curatolo discloses that one of the components is in the medical bracelet of an Alzheimer's patient, while the other component is in the patient's wallet. At least the wallet can be easily separated from the patient, in which case the so-called emergency situation is signaled. In example 4, Curatolo discloses that one component is in a child's wristwatch, while the other is in an ankle bracelet. Again, at least the wristwatch is not fixably located, so that the so-called emergency situation is signaled when the wristwatch is removed. Curatolo in fact relies on

the easy detachability of at least one of the components. In contrast, claim 8 recites that both the controller and the component are fixably located. The mode of operation in accordance with claim 8 does not depend on the separation of the two components from each other. If, however, the controller is disconnected from the power supply, the alarm component can detect this condition and autonomously generate an alarm. This approach does not rely on easy detachability. Indeed, easy detachability of the alarm component may cause false alarms when the alarm component is moved unintentionally within the passenger vehicle, for example, during hard braking, cornering, or acceleration.

The Examiner's Answer asserts (page 12) that Curatolo's "signalling units *could be* fixably located within the same material asset." But from the discussion in the immediately preceding paragraph it is clear that Curatolo's reference becomes useless when the self-powered signaling units are fixed and not easily removable. In view of the entire teaching of Curatolo, a person skilled in the art would be lead away from fixable attachment and from incorporating Curatolo in the asserted APA and Khan. The Examiner's Answer did not consider this teaching away in reaching its unfounded conclusion of obviousness.

At least for the above reasons, Applicant respectfully submits that a *prima facie* case of obviousness of claim 8 has not been made, and that this claim is patentable over the references.

B. Independent Claim 1

Independent claim 1 stands rejected on the same ground as claim 8, and recites limitations that are identical, similar or analogous to the limitations of claim 8 discussed above. Applicant respectfully submits that a *prima facie* case of obviousness of claim 1 has not been made at least for

the same reasons as are discussed above in relation to claim 8, and that claim 1 is patentable over the references.

C. Independent Claim 14

Independent claim 14 stands rejected on the same ground as claim 8, and recites limitations that are identical, similar or analogous to the limitations of claim 8 discussed above. Applicant respectfully submits that a *prima facie* case of obviousness of claim 14 has not been made at least for the same reasons as are discussed above in relation to claim 8, and that claim 14 is patentable over the references.

D. Independent Claim 21

Independent claim 21 stands rejected on the same ground as claim 8, and recites limitations that are identical, similar or analogous to the limitations of claim 8 discussed above. Applicant respectfully submits that a *prima facie* case of obviousness of claim 21 has not been made at least for the same reasons as are discussed above in relation to claim 8, and that claim 21 is patentable over the references.

E. Dependent Claim 27

Claim 27 depends from claim 1 and reads as follows:

27. The alarm system component of claim 1 further comprising a detector connected to the means for performing an audible alarm indication function for the purpose of detecting one or more alarm triggering devices.

In rejecting this claim, the Final Office Action (page 5) and the Examiner's Answer (page 7)

asserted that “Camhi discloses a system for the security . . . wherein a processor 12 activates output device 34, such as an alarm, in response to sensors 28” This appears to be a reference to Camhi’s embodiments illustrated in Figures 2 and 3. Applicant notes that neither of these Figures shows a connection between the output devices 34 and the sensors 28. Thus, in Camhi the detector is not connected to the means for performing an audible alarm indication. Instead, the output of the sensors 28 is received by the processor 12, which also drives the output devices 34. *E.g.*, Camhi, col. 15, line 54, through col. 16, line 2.

We further note that the entire apparatus of Camhi’s Figure 2 or Figure 3 should not be analogized to the means for performing an audible alarm indication function of claim 1. The means for performing an audible alarm indication recited in claim 1 produces an alarm in response to both (1) the alarm controller, and (2) autonomously, for example, after a predetermined time interval without a signal. In contrast, Camhi’s embodiments in Figures 2 and 3 appear to be self-contained alarm systems, because they apparently do not generate alarms in response to communications from another alarm controller. Furthermore, the recitation of the means for performing an audible alarm expressly invokes claim construction under 35 U.S.C. § 112, sixth paragraph. Consequently, the limitation must “be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”

Neither Camhi nor other art of record apparently discloses or suggests means for performing an audible alarm indication function connected to a detector, and capable of producing an alarm both autonomously and in response to a signal from an alarm controller.

At least for these reasons, Applicant respectfully submits that claim 27 is separately patentable.

F. Dependent Claim 30

Claim 30 depends from base claim 1 and intervening claim 27, and recites the limitation that requires the detector to be “wirelessly connected to the means for performing an audible alarm indication function.” In rejecting this claim, the Final Office Action (page 5) and the Examiner’s Answer (page 8) asserted that “one of ordinary skill would have readily recognized that combining the system of Camhi into a system of wireless connectivity, then the components of Camhi would also be wireless.” This conclusory statement is the sum total of the analysis underlying the rejection of claim 30. As discussed above in relation to the *KSR Int’l Co. v. Teleflex Inc.* opinion, such conclusory rejection cannot stand. It further appears that none of the references of record discloses a wirelessly connected detector. Still further, wireless communications between and among all components are not inherent merely because some components communicate wirelessly.

At least for these reasons, Applicant respectfully submits that claim 30 is separately patentable.

G. Dependent Claim 31

Dependent claim 31 stands rejected on the same ground as claim 27, and recites limitations that are similar or analogous to the limitations of claim 27 discussed above. Applicant respectfully submits that claim 31 is patentable at least for the same reasons as are discussed above in relation to claim 27.

H. Dependent Claim 33

Claim 33 depends from base claim 1 and intervening claim 31, and recites the following limitation: “wherein the one or more measurable physical conditions is engine revolutions per minute.” In rejecting this claim, the Final Office Action (page 5) and the Examiner’s Answer (pages 7-8) asserted that “it would have been obvious to one of ordinary skill in the art to monitor and activate an alarm on any number of vehicle conditions such as engine revolutions” This conclusory statement is the sum total of the analysis underlying the rejection of claim 33. As discussed above in relation to the *KSR Int’l Co. v. Teleflex Inc.* opinion, such conclusory rejection cannot stand. It further appears that none of the references of record discloses alarm activation based on engine revolutions.

At least for these reasons, Applicant respectfully submits that claim 33 is separately patentable.

I. Dependent Claim 34

Dependent claim 34 stands rejected on the same ground as claim 30, and recites limitations that are similar or analogous to the limitations of claim 30 discussed above. Applicant respectfully submits that claim 34 is patentable at least for the same reasons as are discussed above in relation to claim 30.

J. Dependent Claim 35

Dependent claim 35 recites the alarm system of base claim 1, and adds the following component: “an immobilizer connected to the means for performing an audible alarm indication

function for the purpose of restricting engine activation.” In rejecting this claim, the Final Office Action (page 6) asserted that “Hwang teaches of a forced passive anti-hijack security system wherein in response to sensor 30, . . . starter, engine and fuel are disabled and/or killed,” Hwang, however, apparently does not disclose that the devices for disabling starter, ignition, or fuel supply are connected to a means for performing an audible alarm indication. Hwang’s Figure 1b shows these devices connected to the central processing unit 11, which also controls the siren/horn driver. Applicant further notes that the entire apparatus of Hwang’s Figure 1b should not be analogized to the means for performing an audible alarm indication function of claim 1 of the present application, as is discussed in more detail in relation to claim 27. Applicant respectfully submits that claim 35 is separately patentable at least for these reasons.

K. Dependent Claim 36

Claim 36 depends from claim 35 and additionally requires the immobilizer to be activated “based on a local event.” In rejecting this claim, neither the Final Office Action nor the Examiner’s Answer construed the meaning of “local” when this word modifies or qualifies the word “event.”

The present application does define “local” in relation to “event”: “The alarm indicator 32 may also generate an alarm condition based on a locally detected alarm event, *i.e.*, independent of the central alarm controller 30.” Application, numbered paragraph 020, page 6 (underlining added for emphasis). This is an express definition. But the definition or redefinition of a claim term in the specification need not be explicit, and may be achieved “by implication.” *Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268, 59 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2001) (“[A] claim term may be clearly redefined without an explicit statement of redefinition.”);

Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1344, 58 U.S.P.Q.2d 1059, 1065 (Fed. Cir. 2001). “In other words, the specification may define claim terms ‘by implication’ such that the meaning may be ‘found in or ascertained by a reading of the patent documents.’” *Bell Atl. Network Servs.*, 262 F.3d at 1268 (*quoting Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 n.6, 39 U.S.P.Q.2d at 1577, 1578 n.6).

The rejections had not construed “local event,” but even if they had, Applicant’s definition of “local” must govern over any extrinsic source. *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 U.S.P.Q.2D 1321 (Fed. Cir. 2005) (*en banc*). Therefore, the immobilizer must be activated based on a local event, detected independently of the central alarm controller. Hwang apparently does not disclose such immobilizer or such local events.

At least for these reasons, Applicant respectfully submits that claim 36 is separately patentable.

L. Dependent Claim 38

Claim 38 depends from claims 1 and 3, and recites the following limitation: “wherein the means for generating an audible alarm indication based on signals received from the alarm controller generates an alarm condition based on a locally detected alarm event.” As discussed immediately above in relation to claim 36, a locally detected event is detected independently of the central alarm controller. The references do not disclose or suggest such locally detected events, or alarm activation based on such locally dependent events.

At least for these reasons, Applicant respectfully submits that claim 36 is separately patentable.

M. Remaining Dependent Claims

Dependent claims that are not specifically addressed in the above arguments are patentable at least for the reasons discussed in relation to their respective base claims and intervening claims, if any.

IV
CONCLUSION

For the foregoing reasons, Applicant-Appellant respectfully submits that all pending claims are patentable over the references of record and respectfully requests reversal of the rejections.

Respectfully submitted,

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